WHAT IS CLAIMED AS NEW AND DESIRED TO BE PROTECTED BY LETTERS PATENT OF THE UNITED STATES OF AMERICA, IS:

1. A bulk material cargo container liner system for disposition within a bulk material cargo container, comprising:

a bulk material cargo container liner, for disposition within a bulk material cargo container, for containing bulk cargo material, and having a substantially rectangular parallelepiped structure when erected whereby said bulk material cargo container liner comprises a front wall surface portion, a pair of side wall surface portions, a top wall surface portion, a bottom wall surface portion, a rear wall surface portion, and a longitudinal axial extent defined between said rear wall surface portion and said front wall surface portion;

at least one vacuum discharge tube member disposed internally within said bulk material cargo container liner for discharging the bulk cargo material, which is disposed within said bulk material cargo container liner, toward a bulk material discharge port defined within said rear wall surface portion of said bulk material cargo container liner; and

at least one inflatable air bag component, operatively associated with said bulk material cargo container liner for causing the bulk cargo material, disposed within said bulk material cargo container liner, to undergo fluid flow toward said at least one vacuum discharge tube member disposed within said bulk material cargo container liner when said at least one inflatable air bag component is inflated from a relatively deflated state to a relatively

inflated state so as to facilitate the evacuation of the bulk cargo material from the interior of said bulk material cargo container liner without requiring the tilting of said bulk material cargo container liner.

2. The system as set forth in Claim 1, wherein:

said at least one inflatable air bag component is disposed internally within said bulk material cargo container liner.

3. The system as set forth in Claim 1, wherein:

said at least one inflatable air bag component is disposed externally of said bulk material cargo container liner.

4. The system as set forth in Claim 1, wherein:

said at least one inflatable air bag component has a substantially right-triangular cross-sectional configuration with the hypotenuse portion thereof disposed toward said at least one vacuum discharge tube member.

5. The system as set forth in Claim 4, wherein:

said at least one inflatable air bag component com-

prises a plurality of axially separated compartments each one of which has a substantially right-triangular cross-sectional configuration.

6. The system as set forth in Claim 1, wherein:

said at least one inflatable air bag component comprises a plurality of compartments which together define a substantially right-triangular cross-sectional configuration with the hypotenuse portion thereof disposed toward said at least one vacuum discharge tube member.

7. The system as set forth in Claim 6, wherein:

each one of said plurality of compartments has a cross-sectional configuration selected from the group comprising substantially circular and substantially semi-circular; and

each one of said plurality of compartments is fabricated from a member selected from the group comprising an enclosed balloon and a web member.

8. The system as set forth in Claim 1, wherein:

said at least one inflatable air bag component has a substantially circular cross-sectional configuration.

9. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member has a cross-sectional configuration which is selected from the group comprising semi-circular and circular.

10. The system as set forth in Claim 9, further comprising:

arcuately-shaped cradle means operatively connected to said bulk material cargo container liner for seating said at least one vacuum discharge tube member thereon in order to positionally maintain said at least one vacuum discharge tube member at a predetermined position within said bulk material cargo container liner when said at least one vacuum discharge tube member has a circular cross-sectional configuration.

11. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member comprises a single vacuum discharge tube assembly disposed along the axial centerline of said bulk material cargo container liner; and

said at least one inflatable air bag component comprises a pair of inflatable air bag components disposed within the oppositely disposed side corner regions of said bulk material cargo container liner so as to cause bulk cargo material to flow from said oppositely disposed side corner regions of said bulk material cargo container liner toward said single vacuum discharge tube assembly disposed

along said axial centerline of said bulk material cargo container liner when said pair of inflatable air bag components are inflated.

12. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member comprises a pair of vacuum discharge tube assemblies disposed within the oppositely disposed side corner regions of said bulk material cargo container liner; and

said at least one inflatable air bag component comprises an inflatable air bag component assembly disposed along the axial centerline of said bulk material cargo container liner so as to cause bulk cargo material to flow from axially central regions of said bulk material cargo container liner toward said pair of vacuum discharge tube assemblies disposed within said oppositely disposed side corner regions of said bulk material cargo container liner when said inflatable air bag component assembly is inflated.

13. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member comprises a pair of vacuum discharge tube assemblies disposed within laterally spaced central regions of said bulk material cargo container liner; and

said at least one inflatable air bag component comprises a plurality of inflatable air bag component assemblies disposed along the axial centerline of said bulk ma-

terial cargo container liner and within the oppositely disposed side corner regions of said bulk material cargo container liner so as to cause bulk cargo material to flow from axially central regions of said bulk material cargo container liner, and from said oppositely disposed side corner regions of said bulk material cargo container liner, toward said pair of vacuum discharge tube assemblies disposed within said laterally spaced central regions of said bulk material cargo container liner when said plurality of inflatable air bag component assemblies are inflated.

14. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member comprises a vacuum discharge tube assembly comprises a plurality of vacuum discharge tube sections fixedly but separably connected together so as to extend throughout said longitudinal axial extent of said bulk material cargo container liner.

15. The system as set forth in Claim 14, further comprising:

means, selected from the group comprising snap-fitting means and clamping means, for fixedly but separably connecting together adjacent end portions of said plurality of vacuum discharge tube sections.

16. The system as set forth in Claim 14, further comprising:

means operatively connected to said plurality of vacuum discharge tube sections for adjusting the amount of vacuum suction force which can effectively be impressed upon each one of said vacuum discharge tube sections.

17. The system as set forth in Claim 16, wherein:

each one of said vacuum discharge tube sections has a first set of apertures defined within side wall portions thereof so as to fluidically connect the interior portion of said bulk material cargo container liner to the interior portions of said vacuum discharge tube sections; and

said means operatively connected to said plurality of vacuum discharge tube sections for adjusting the amount of vacuum suction force which can effectively be impressed upon each one of said vacuum discharge tube sections comprises a strip movably mounted within each one of said vacuum discharge tube sections and comprising a second set of apertures which are to be aligned and misaligned with respect to said first set of apertures defined within said side wall portions of said vacuum discharge tube sections when said strips are moved within each one of said vacuum discharge tube sections between **EXTENDED** and **RETRACTED** positions.

18. The system as set forth in Claim 16, wherein:

each one of said vacuum discharge tube sections

has a first set of apertures defined within side wall portions thereof so as to fluidically connect the interior portion of said bulk material cargo container liner to the interior portions of said vacuum discharge tube sections; and

said means operatively connected to said plurality of vacuum discharge tube sections for adjusting the amount of vacuum suction force which can effectively be impressed upon each one of said vacuum discharge tube sections comprises a sleeve member movably mounted within each one of said vacuum discharge tube sections and comprising a second set of apertures which are to be aligned and misaligned with respect to said first set of apertures defined within said side wall portions of said vacuum discharge tube sections when said sleeve members are moved within each one of said vacuum discharge tube sections between **EXTENDED** and **RETRACTED** positions.

19. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member has a circular cross-sectional configuration; and

a coil spring member is disposed internally within said at least one vacuum discharge tube member so as to prevent the internal collapse of said at least one vacuum discharge tube member when said at least one vacuum discharge tube member undergoes any one of flexed, bent, and coiled manipulations.

20. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member comprises a plurality of inflatable tubular members disposed within an annular array so as to provide said at least one vacuum discharge tube member with its circular cross-sectional configuration.

21. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member comprises a single vacuum discharge tube assembly disposed along the axial centerline of said bulk material cargo container liner; and

said at least one inflatable air bag component comprises a plurality of inflatable air bag components disposed within oppositely disposed side corner regions of said bulk material cargo container liner and within a forward end portion of said bulk material cargo container liner so as to cause bulk cargo material to flow from said oppositely disposed side corner regions of said bulk material cargo container liner, and from said forward end portion of said bulk material cargo container liner, toward said single vacuum discharge tube assembly disposed along said axial centerline of said bulk material cargo container liner when said plurality of inflatable air bag components are inflated.

22. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member

comprises has a single intake port disposed at a central location within said bulk material cargo container liner; and

said at least one inflatable air bag component comprises a plurality of inflatable air bag components disposed within oppositely disposed side corner regions of said bulk material cargo container liner and within forward and rearward end portions of said bulk material cargo container liner so as to cause bulk cargo material to flow from said oppositely disposed side corner regions of said bulk material cargo container liner, and from said forward and rearward end portions of said bulk material cargo container liner, toward said single intake port of said vacuum discharge tube assembly when said plurality of inflatable air bag components are inflated.

23. The system as set forth in Claim 1, wherein:

said at least one vacuum discharge tube member comprises a vacuum discharge tube assembly having a substantially T-shaped configuration so as to be disposed along the axial centerline of said bulk material cargo container liner as well as transversely across said bulk material cargo container liner; and

said at least one inflatable air bag component comprises a plurality of inflatable air bag components disposed within forward and rearward end portions of said bulk material cargo container liner so as to cause bulk cargo material to flow from said forward and rearward end portions of said bulk material cargo container liner toward said T-shaped vacuum discharge tube assembly when said plurality of

inflatable air bag components are inflated.

24. A method of discharging bulk cargo material from a bulk material cargo container without the necessity of disposing the bulk material cargo container within a tilted mode, comprising the steps of:

providing a bulk material cargo container liner, having a substantially rectangular parallelepiped structure when erected and therefore comprising a front wall surface portion, a pair of side wall surface portions, a top wall surface portion, a bottom wall surface portion, a rear wall surface portion, and a longitudinal extent defined between said rear wall surface portion and said front wall surface portion, within a bulk material cargo container;

operatively mounting at least one vacuum discharge tube member internally within said bulk material cargo container liner such that said at least one vacuum discharge tube member can therefore discharge the bulk cargo material, which is disposed within said bulk material cargo container liner, toward a bulk material discharge port defined within said rear wall surface portion of said bulk material cargo container liner;

disposing at least one inflatable air bag component, operatively associated with said bulk material cargo container liner, within a deflated state;

permitting the bulk cargo material to be exhausted through said at least one vacuum discharge tube member under gravitational forces until the angle of repose of the bulk cargo material reaches a state at which fluid flow of the

bulk cargo material no longer occurs under gravitational forces; and

inflating said at least one inflatable air bag component so as to alter the angle of repose of the bulk cargo material disposed within said bulk material cargo container liner and thereby cause the bulk cargo material disposed within said bulk material cargo container liner to again undergo fluid flow toward said at least one vacuum discharge tube member without said bulk material cargo container being required to be disposed within a tilted mode in order to achieve the fluid flow of the bulk cargo material toward said at least one vacuum discharge tube member and the evacuation of the bulk cargo material from said bulk material cargo container liner.